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SIMPLE MINE ACCOUNTING

Simple Mine Accounting

BY

DAVID WALLACE

EXPERT MINE ACCOUNTANT

Walter Davis

1908

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SIMPLE MINE ACCOUNTING

or "Libro de Caja" as it is called in Spanish. At the local store in the town a cash book can be purchased, already lined and ruled, similar to Fig. 1. This blank book will answer the purpose temporarily until the office becomes better established. It should have the headings — on the left side "Receipts" and on the right side "Expenditure." We will suppose that the Boston office of the Federal Mining Company has deposited with the Miners Bank of Mexico City the sum of $10,000 Mexican pesos against which drafts are to be drawn. As previously stated, Old Mexico is simply being referred to as an example; it is immaterial whether, for local purposes, drafts are to be drawn on a bank in Denver, Colo., Mendoza, Argentine Republic, or Brisbane, Queensland, Australia. Presumably, the young man appointed as superintendent, whom we will call Robert Lester, has received an advance in cash from the Federal Mining Company in Boston to pay his traveling expenses, etc.

His first operation, therefore, would be to *charge* his cash with the full amount, say $500 gold, which at exchange rate of 200 per cent would be $1000 Mexican pesos — or in other words one American dollar is worth two Mexican pesos — and the $1000 will appear on the "Receipts" side of Cash Book (see Fig. 1). On the "Expenditure" side of Cash Book he should *credit* his cash with the total sum of his traveling expenses from Boston to destination — as shown on Fig. 1.

Fig.

CASH

RECEIPTS

DATE		FROM WHOM	DRAFT NO.	AMOUNT	
5	1	To cash advanced to R. Lester in Boston			
	"	$500.00 U. S. Cy. @ each 200%		1000	00
	15	Smith & Co.	2000	55	00
	17	Renecke & Co.	2001	500	00
	"	" "	2002	300	00
	"	" "	2003	200	00

No. 1

BOOK

EXPENDITURE

DATE		DESCRIPTION	VOUCHER NO.	AMOUNT	
5	7	R. Lester, traveling expenses	1	225	00
	8	Telegram to Boston (F. M. Co.)		2	00
	9	1 common lamp for office		2	25
	15	Smith & Co., stationery	2	55	00
	"	Pay-roll, labor	3	415	00
	"	Express ch'gs on stationery		4	37

R. Lester, traveling expenses, Voucher 1, $225.

This brings us to the next operation, viz., making out the voucher. Cash has been credited, as we see, with Voucher No. 1, but the voucher itself should be itemized in detail as shown on Fig. 3. By *charging* cash with $1000 and *crediting* cash with $225 leaves a balance in cash of $775 Mexican pesos, out of which future payments can be made as called for.

It will most likely happen that odd payments will have to be made for small articles, occasional messenger service, etc., for which proper receipts cannot be obtained. These, if paid for when out of the office, should be jotted down in a vest-pocket memorandum book, from which they should be entered into Cash Book each day. A word of warning will not be amiss in regard to these petty cash payments. Let no payment, however insignificant, on Company's account pass without entry into books, otherwise at end of month when cash statement is made up for headquarters it will be hard to reconcile actual cash on hand with the payments made. For all telegrams, express charges, etc., receipts should be obtained and kept on file at mine for future reference if necessary. Such charges, at end of month, can be grouped and entered on a regular voucher form, giving dates and particulars. It will be seen that Voucher No. 2, Fig. 1, is for Smith & Co's. bill for stationery, amounting to $55.

Now, as this stationery came from Mexico City, payment must be made by draft on Mexico City. We have already alluded to the fact that the Boston office has placed with the Miners Bank the sum of $10,000. Following the general custom and in accordance with instructions received by them, the bank

has furnished Robert Lester, Superintendent of Federal Mining Company, Las Mesas, Corrientes, a draft book. A draft is therefore drawn in favor of Smith & Co. and mailed to them at Mexico City, same being entered in Cash Book with corresponding number of draft.

The town of Las Mesas, though by no means large, does a considerable business, consequently it will be an easy matter to obtain funds from the storekeepers in return for drafts issued in their favor on Mexico City. Usually, under such circumstances, drafts are issued at par; in other words, the storekeeper pays no premium nor discounts the face value of the draft drawn. In many cases, however, money has to be sent by express and escorted by armed guards from the railroad to the mines, especially large sums intended for pay-roll.

As the development of the property progresses it will be found that the blank memorandum book which has served the purpose for cash entries, and which answered very well temporarily, ought to be discarded for a proper Cash Book (see Fig. 2.)

The columns are self-explanatory. On the side marked "Dr." or Debit, which we will now use in place of "Receipts" we have three columns. After closing the accounts for previous month the balance should be brought forward as cash on hand (see first entry, Fig. 2). "To balance $752.09" in outside column for cash. In the column marked "Various" can be entered such items which do not properly belong to either of the other columns.

For instance: — In checking up pay-roll, Voucher No. 3 for May, it was found that a peon Tomas Castro was credited with half a day too much. As the accounts were closed when this discovery was made

we charge cash with 0.75 in our June statement (see Fig. 2) in the column marked "Various." On the same Voucher No. 3 for May, pay-roll showed $3.25 as due a peon named Juan Garcia. This man did not collect his pay and, from information received, it was learned that he had left the camp, consequently the money which he should have collected, and which was on hand after pay-roll was taken up in Cash Book, should be charged to Cash in June, seeing that credit has been received for same on Voucher No. 3 in May (see Fig. 2) entry in cash column. The established custom of the district being to pay laborers and contractors every fortnight, it will be necessary to obtain funds from the local stores in Las Mesas, which is done by issuing drafts Nos. 2050, 2051, 2053 in favor of Reneckie & Co. in the sum of $6000 (see Draft column, Fig. 2). In other words, silver pesos and bills of different denominations were handed to Superintendent for the drafts made out in their favor. On June 18 (see Fig. 2) there is an item "Mendez é hijo, lumber, $31.68." This is for some lumber sold to a local merchant in Las Mesas.

Whilst the Federal Mining Company is not in the lumber or any other outside selling business, it may happen that, to oblige residents in the neighborhood, occasionally this will be done. The lumber in this case was figured at cost, plus 10 per cent, the value of which is entered in cash column. (This will be referred to later under Material Account and credited to Material Account.)

The Cash Book proper is only concerned with cash, and for this reason, while deductions are made from Pay-roll for Hospital Fund and for materials sold to contractors, credit is obtained in the Journal Record and not in Cash Book.

On the other side of the Cash Book, "Cr." or Credit, which should be used in place of "Expenditure," we start in with Postage Stamps. This being an item which may have to be repeated during the month, together with express charges, telegrams, etc., should be entered in the column "Various." It will also be noted that $6 has been paid to Pedro Banda, a peon who was injured — this being a weekly cash benefit, whilst incapacitated, in addition to medical attendance. (This will be referred to under Hospital Fund.) All charges entered in the "Various" column should be grouped under their several headings on a voucher form and the total sum of voucher carried out into the "Invoice" column, at end of month.

Regarding the advance to Marcos Ramirez; this was made to a contractor who was sinking a shaft, he not being able to wait until pay-day. The $35 will be deducted from pay-roll, and as the amount naturally is included in the total sum of the pay-roll for the first fortnight, we simply strike out the item — not by scratching out the figures, not by charging the cash with the $35, but simply by placing under the figures in *red ink* the same amount, to signify that the amount has been taken up and also to avoid taking credit for the payment twice. The whole object, as may readily be seen by the intelligent reader, is to make the entries so that the different accounts can be easily checked and also serve the purpose of ready reference.

During the month materials and supplies will be constantly coming in. Those in carloads can be identified by car number and railroad expense bill, small articles by Expense Bill Number and duly entered in the "Freights" column. At end of the

Fig.

CASH

DEBIT — FEDERAL MINING

DATE		FROM WHOM RECEIVED	DRAFT NO.	DRAFTS		VARIOUS		CASH	
6	1	To Balance						752	09
	"	Reneckie & Co.	2050	500	00				
	"	" "	2051	500	00				
	3	Eastern R. R. Co.	2052	294	00				
	"	Correction, overcharge, voucher No. 3, May. ½day. Tomas Castro.					75		
	"	Unclaimed wages, voucher No. 3, May. Juan Garcia						3	25
	10	Reneckie & Co.	2053	5000	00				
	15	National Explosive Co.	2054	5300	00				
	"	Mexican Lumber Co.	2055	370	00				
	"	American Telephone Co.	2056	150	00				
	18	Medical Supply Co.	2057	30	00				
	"	Mendez é hijo, lumber						31	68
	"	Eastern R. R. Co.	2058	2889	70				
	"	Trevino y Cia.	2059	2000	00				
	25	Reneckie & Co.	2060	1000	00				
	"	" "	2061	3000	00				
	"	" "	2062	2000	00				
	30	Sam Lung						155	00
	"	Reneckie & Co.	2063	2007	45				
				25041	15			25041	15
							75		75
								25983	92

No. 2

BOOK

COMPANY CREDIT

DATE		DESCRIPTION	VARIOUS		FREIGHT		PAY-ROLL		INVOICES	
6	1	Postage stamps	10	00						
	3	Express, signal wire from Mexico	2	15						
	"	R. R. freight, lumber car 4976, No. 39			294	00				
	7	Reneckie & Co., hardware							61	80
	8	Telegram to Boston (F. M. Co.)	2	70						
	9	Hospital, cash to P. Banda	6	00						
	"	M. Ramirez, cash advance	*35	00						
	15	Pay-roll, 1st fortnight					6213	75		
	"	Nat. Explosive Co., powder							5300	00
	"	Mexican Lumber Co., car 4976							370	00
	18	R. R. freight, explosives, car 5879, No. 41			489	70				
	"	R. R. freight, mach'y, car 12,575, No. 43			2400	00				
	"	Am. Telephone Co., batteries, etc.							150	00
	18	Express, office supplies for Mexico	4	20						
	"	Medical Supply Co., cost							30	00
	30	Sam Lung, hotel supplies							155	00
	"	R. R. frt., telephone mat'ls, No. 52			5	90				
	"	Pay-roll, 2nd fortnight					7646	80		
	"	" employees							1665	96
	"	Telegrams, express, etc.	25	05					25	05
	"	R. R. freight charges			3189	60			3189	60
	"	Pay-roll, labor					13860	55	13860	55
	"	Balance							1175	96
									25983	92

month the whole can be grouped on a voucher form and the total carried out to "Invoice" column. Pay-roll column should contain the net sum which is paid out in cash each pay-day, whether weekly, fortnightly or other periods, and at end of month total can be carried into "Invoice" column. Regarding the deduction for materials and contributions to hospital fund, these will be entered in Journal Record Book and will be referred to later. From the above it will be seen that the "Invoice" column is used for vouchers complete in themselves. Here let it be observed that each country has its own language and laws and that financial books must be kept in language of the country. For example, in Mexico, instead of:

Cash Book	read	Libro de Caja.
Debit	"	Debe.
Credit	"	Haber.
Draft	"	Libranza.
Voucher	"	Recibo.
Various	"	Varios.
Freights	"	Fletes.
Pay-Roll	"	Raya.
Invoice	"	Factura.

As, however, this work is not a Spanish Primer, we will leave the question of language to each reader to acquire in his own way.

VOUCHERS

In view of the fact that all original invoices (for purposes of this work) and receipts go to Headquarters in Boston, it is not only desirable but necessary that same be in duplicate, the latter for file at the mine. Style and size for mine vouchers which will be found best adapted for the purpose is seen in Fig. 3, say 8½ in. wide by 7 in. or 10 in. long, printed in copying ink. On the reverse side should be printed in black ink the particulars given in Fig. 4. The size mentioned will be convenient for typewriter and, when folded once or twice, prove to be of proper dimensions for a large manila envelope.

Seeing, however, that invoices of all kinds and sizes are received from outside sources, a rubber stamp, made exactly to correspond to the printing on Fig. 4, should be obtained and used on the outside of all documents intended for vouchers, after folding them to same width and length as company voucher forms. As previously stated, all invoices should be in duplicate, but where — as in Mexico — the law requires that invoices be stamped, only the originals need carry stamps. Such documents as Railroad Expense Bills should be kept (copies) in special book and, when originals are sent to the shipper who pays freight charges, an extra copy should be taken for the Boston office. If for any reason a duplicate invoice is not furnished, then an exact copy should be made at the

Fig. No. 3

No.

Las Mesas, May 7, 1907

Charge Gen. Expense

Credit

Federal Mining Company

to

Robert Lester, *Sup'd't*

DATE		DESCRIPTION				
May	7	To traveling expenses from Boston to Las Mesas, Mexico —				
		R. R. fare, Boston to Mexico City	140	00		
		Pullman " " " "	25	00		
		Meals en route	20	00		
		Hotel " "	8	00		
		Coach-hire " "	2	00		
		R. R. to Las Mesas from " "	23	00		
		Excess baggage	5	75		
		Porterage	1	25	225	00
		Rec'd				
		Robt. Lester				

Fig. No. 4

No.

Federal Mining Company

Las Mesas, Cor. Mexico

Month 190

mine for filing. All packing lists to be attached to the duplicate invoices and kept at mine for future reference. It will be surprising the amount of work this will save the office staff later on. In this connection one might also suggest keeping a small index book in which, at end of month, name, number of invoice be given, with month and year. Five years hence, when the manager wishes to know what the cost of a certain hoist amounted to, it will be a matter of ten minutes to find the invoice instead of two days.

The form (Fig. 3) will also be suitable for making out bills against persons buying materials from the company. For instance, on Fig. 2 there is an item "Mendez é hijo" (Spanish for Mendez & Son) for lumber sold, and same is made out as shown on Fig. 5. The cost of the lumber f. o. b. Las Mesas was $80, plus 10 per cent, makes $88 per Mil feet, hence the price would be as indicated on the bill against Mendez é hijo.

On the bill will be noted the words "charge" and "credit." Now, as the lumber belongs to Material Account (we shall refer later to this subject), the amount received from Mendez é hijo is credited to Material Account and, seeing also that the money was actually received, charged to cash as per entry in Fig. 2.

Fig. No. 5

No.

Las Mesas, June 10, 1907

Mendez é Hijo — Charge, Cash

to — Credit Material %

Federal Mining Company

DATE		DESCRIPTION				
6	10	10 boards 2 × 12 × 18 — 360 ft. @ 88.00			31	68

DRAFTS

Every one who has had any business experience is more or less familiar with drafts and checks. We have referred to various drafts drawn for different purposes. In Fig. 6 is shown form of draft as used by the Miners Bank, Mexico City, with stub of same. In issuing draft it would be well to accustom one's self to writing particulars on the stubb first. By "Particulars" is meant in whose favor drawn and for what purpose, with the amount. Another suggestion is that, commencing with the first number, the draft itself, in addition to the bank number, should begin with No. 001, but on the stub simply No. 1, advising the bank of the latter, as precaution in case check book fell into the hands of an unauthorized person who wished to make use of same by forging the Superintendent's name; any other special mark will do as well. Should the issuing of drafts be of frequent occurrence or for large amounts, a daily or weekly advice sheet to bank would prove a further safeguard.

In any case balance should be checked with bank at end of each month. When drafts are drawn, similar to Nos. 2050, 2051, 2053, the stub should read "Cash for Pay-roll," thus indicating that the drafts were drawn in favor of Reneckie & Co. to obtain funds for the purpose named.

Fig. No. 6

No. 1

SMITH & Co.

Stationery

Invoice No. 1

5/15/07

$55.00

2002

No. 001

2002

Miners Bank

CINCO DE MAYO No. 2007

MEXICO, D. F.

Las Mesas, May 15, 1907

Pay to order of SMITH & Co. *the sum of Fifty and Five* $\frac{00}{100}$ *Dollars*

FEDERAL MINING COMPANY

$55\frac{00}{100}$

ROBT. LESTER, *Supt.*

PAY-ROLLS

For the first few weeks it will be almost impossible to make up any itemized pay-roll, in fact it is more than likely that many men will be put on or a contract made, with only a pencil memorandum of price from which a rough list is prepared prior to paying off of the men, checking each man as he is paid. Later on, as the operations increase, embracing the San Juan, San Pedro, and the San Marcos mines, each property to have its own account, it will be found absolutely necessary to install some simple and satisfactory method of handling the business. Fig. 7 will prove an expeditious, economical, and accurate system, subject of course to local modifications, as a Time Book for men on day's pay, size 4½ in. by 7½ in., with strong covers to stand rough usage. Each mine can have its own book and foreman held responsible, and if more than one department at any mine, the foreman of each department, for all entries in his own Time Book. If conditions will allow, payment to be made twice each month, 15th and last day — pay-day to fall on Saturday following dates mentioned; *i.e.*, should the 15th fall on Thursday books can be made up to 15th and the extra days 16th and 17th carried forward to next pay-roll. Where the 15th fell on the Saturday there would be no time to make up the books, consequently pay-day would follow on the next Saturday. Pay-day would fall every fortnight with the exception of three

Fig. No. 7

DAILY TIME BOOK

FEDERAL MINING COMP'S
DAILY TIME BOOK
SAN JUAN MINE

From

To

190

NAME	OCCUPATION		DAY	RATE	TOTAL	ADV.	HOSP.	RENT	NET
Juan Alvarez	Hoistman	/ / / / / / / / / / / / / / /	15	2 00	30 00		35	1 00	28 65

or four times in the year, when a period of three weeks would elapse between pay-days. The Time Book has sixteen spaces to allow for time between the 16th and 31st in months containing that number of days. Under this system, to avoid extra work at the mines by timekeeper or foreman in making entries twice over, two Time Books will be required, viz., one for 1st to 15th and the second from 16th to end of month, because on the 15th the first Time Book will be sent to the office for making up the pay-roll and will no doubt be kept two or three days for the purpose; in the meantime the second book is already at the mine for entries to be made covering second fortnight. The foreman at the mine enters in the Time Book name, occupation, time worked, and rate per day, attaching his signature at the bottom. At the office the extensions will be made, showing gross amount due each man in the "Total" column. Deductions for hospital fund, rent or advances made will appear in their respective columns, and in the "Net" column the actual amount to be paid in cash. The column for "Advances" can be used when a man when commencing work is short of funds and asks for a loan — such request to be made in writing by Foreman and held against man's time on pay-day. It may also be employed for any old materials sold to laborers, in such case notation to be made in the Time Book. A separate book should be kept for contracts (see Fig. 8). Most of the columns are self-explanatory. Aurelio Hernandez has ten men; the reason for showing number of men employed by each contractor is to ascertain how much each man is receiving per day and to deduct corresponding amount, due from every one, as contribution to Hospital Fund, through the

Fig. No. 8

MINE CONTRACT BOOK

MINE FROM TO 190

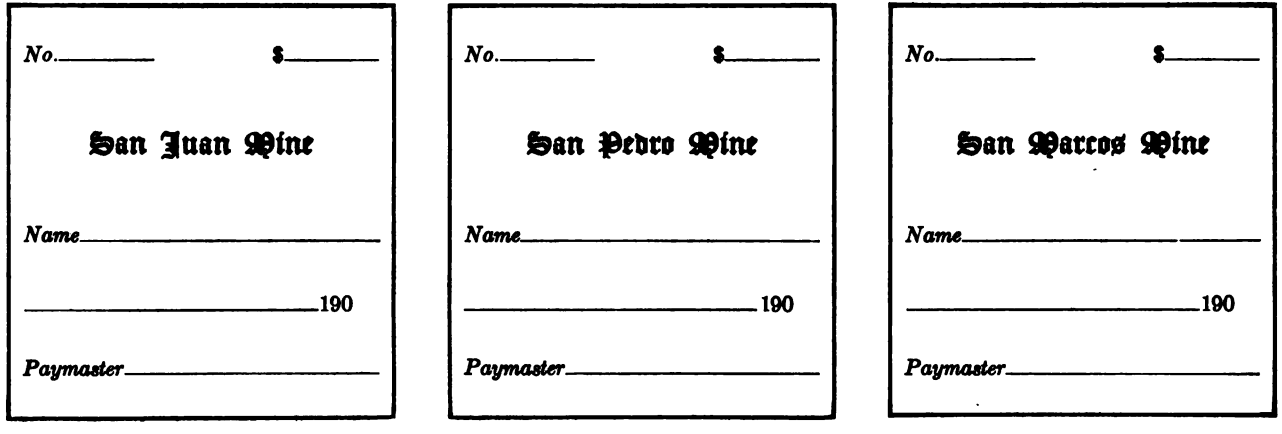
	NO.	NAME OF CONTRACTOR	NO. OF MEN	METERS	TONS OF CARS	PRICE	SUM	TOTAL	AD-VANCE	HOS-PITAL	MATE-RIALS	RENTS	NET
	1	Aurelio Hernandez	10	3.20		10 00	32 00						
					100	1 50	150 00	182 00		3 50	25 00		153 50

contractor. In the column for meters certain numbers or letters can be assigned to distinguish each class of work, whether sinking shaft, development or stoping ore, to serve as a guide for distribution of the account. The mine foreman enters name, meters driven, cars or tons of ore mined with price for each and all extensions are made at the office. After ascertaining the net amount due each man, whether on day's pay or contractor, we proceed to enter on a loose leaf or in a book — the latter being much more satisfactory — the name of each man, giving him a number with net amount due, for example:

(1) Juan Alvarez 28.65
(2)
(3)
(4)
(5)
(6)
(7)
(8) Aurelio Hernandez.....153.50

Each mine is kept separate, commencing with San Juan Mine up to last number for that mine, and then follow with consecutive number for San Pedro Mine and so on till last number for the San Marcos Mine. From this list of names and the amounts shown against each man, corresponding tickets are made out corresponding exactly to the list. These tickets can be of different colors and printed in manner shown on Fig. 9. Each mine foreman receipts for the number of tickets pertaining to his department and personally distributes the tickets to the proper parties. Every man must collect his pay in person or, if unable through sickness, ticket to be endorsed

Fig. No. 9


No. $
San Juan Mine
Name
190
Paymaster
No. $
San Pedro Mine
Name
190
Paymaster
No. $
San Marcos Mine
Name
190
Paymaster

for payment to responsible person, by the foreman. No ticket to be transferable to a storekeeper, etc.

The Pay-roll Book proper is now made up from Time Books and the Contract Books. This book is a replica of the other two, but of larger size, dispensing with the columns for "Advances" and "Net" (see Fig. 10). A convenient size would be 17 in. high by 15 in. wide and contain about 75 double leaves. The second sheet to be of thin, strong paper printed exactly same as first leaf, but in addition should be perforated (see dotted line).

Pay-roll can made be up with indelible pencil, using carbon paper for the second leaf. The last column to be used for the "Distribution" No. 11 (see Distribution of Accounts). The total sum of the pay-rolls for the three mines, less the deductions for hospital, materials, and rent, will then be entered in the column in the Cash Book marked "Pay-roll."

In addition to the labor pay-roll there will also be one for the monthly employees, such as Superintendent, Mechanics, Foremen, etc. A form similar to Fig. 11 will be found suitable. This to be in copying ink. After all signatures are obtained same should be copied in regular tissue copy book kept for monthly statements. A duplicate can also be made out, simply showing the total sum, with distributions, to be filed with other duplicate vouchers at the mine. The net sum of this voucher should appear in the "Invoice" column of cash book. The $7.50 deduction for hospital will enter your Journal Record Book, of which more later.

Fig. No. 10

FEDERAL MINING COMPANY

LAS MESAS, CORRIENTES, MEXICO

PAY ROLL MINE FROM TO 190

NO.	NAME	OCCUPATION	DIST. NO.	MEN	DAYS	METERS	TONS OR CARS	PRICE	TOTAL	MAT'LS	HOSPITAL	RENTS
1	Juan Alvarez	Hoistman	4		15			2 00	30 00		35	1 00
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12	Aurelio Hernandez	Contractor	2	10		3.20		10 00	32 00	25 00	3 50	
"	" "	"	3				100	1 50	150 00			

Fig. No. 11

No. 11

FEDERAL MINING COMPANY

LAS MESAS, CORRIENTES, MEXICO

EMPLOYEES PAY-ROLL

NAME	OCCUPATION	DAYS	RATE	AMERICAN CURRENCY		MEXICAN CURRENCY		SIGNATURE	HOSPITAL	
Robt. Lester	Sup'dt			200	00	400	00		1	50
Alfonso Ibarra	Physician					173	46		—	—
Alex. McDonald	Mechanic			150	00	300	00		1	50
Samuel Ferguson	Foreman			150	00	300	00		1	50
George Jenkins	Shift Boss			125	00	250	00		1	50
Edward Masters	" "			125	00	250	00		1	50
						1673	46		7	50

Distribution

Gen. expense.....1000.00
Hoisting, S. Juan..... 250.00
Con. mach'y, S. Pedro..... 250.00
75% receipts — Hospital..... 173.46
Rate of Exch. 200%

HOSPITAL FUND

It is customary in all mining camps, where a large number of men are employed, to engage a doctor, who is both surgeon and physician. Sometimes he is a salaried official who devotes his whole time to the company — the latter furnishing rooms, appliances, medicines, etc. A better system, perhaps, is to pay, say 75 per cent of the receipts, these of course coming out of the deductions from pay-roll, the doctor to give attendance and supply all medicines. Out of the remaining 25 per cent supplementary aid in the form of cash may be allowed to workmen or their families and, in case of death, funeral expenses may be paid with a small monetary contribution to the surviving relatives.

A printed form should be used, similar to Fig. 12. This can be adapted to both purposes, *i.e.*: by the foreman of the mine, who would address same to the medical man and on the bottom line write "Medical Attention," stating cause; the doctor when using the ticket would address superintendent or man in charge of the office, giving same particulars, excepting that in place of "Medical Attention" he would write the amount to be paid in cash. The fund should be so adjusted that the receipts only slightly exceed the disbursement, carried forward from month to month.

Fig. No. 12

FEDERAL MINING COMPANY

HOSPITAL TICKET

6/9, 1907

MR. ROBT. LESTER

Please give PEDRO BANDA $6.00, *workman in S. Juan Mine. Cause—sickness.*

Signed

A. IBARRA, *Physician.*

MATERIAL ACCOUNT

The material account is by no means the least important part of bookkeeping. This is a department in itself at large mining camps, with separate staff, books, forms, etc. However, we are now concerned with the question on a smaller scale.

There are certain supplies and materials constantly being used at the mines on which it is very necessary to keep a vigilant watch, checking all the requisitions almost down to the last fraction, for, while cash is in charge of a responsible person, it frequently happens that materials are handled by ignorant and unscrupulous workmen. There are several articles which are purchased in large but utilized in small quantities, such as lumber, fuel, candles, explosives, sacks, stable supplies, etc., that may properly be included in the Material Account (see Fig. 13). In opening the material account, say 1st of June, take an inventory of all the supplies on hand which are to be included in the account: How many cases of candles, size, number to box, with price f. o. b. Las Mesas. How many cases of powder, 40 per cent, 60 per cent, black; how many feet of fuse, single tape, double; how many caps, etc. In fact figure quantity and price of each article. Should prices, for any reason be unobtainable, use the local prices prevailing for that particular one in question. The next question will be to open a Warehouse Book (see Fig. 14). This

Fig. No. 13

FEDERAL MINING COMPANY, LAS MESAS, MEXICO

MATERIAL ACCOUNT

MONTH 190

DESCRIPTION	ON HAND 1ST MONTH		RECEIVED		USED										TOTAL		ON HAND END OF MONTH	
					S. JUAN		S. PEDRO		S. MARCOS		MAT'LS		SOLD					
Candles	1000	00			100	00	30	00	70	00					200	00	800	00
Explosives, Powder	1160	00	5965	00	45	00	90	00	35	00					170	00	6955	00
Caps	30	00			2	40		60		60					3	60	26	40
Fuse	24	00			2	40		60		60					3	60	20	40
Fuel	1150	00			220	00	110	00	110	00					440	00	710	00
Lumber	1942	00	894	00	486	60	111	12	102	28			31	68	731	68	2104	32
Oils, Greese, etc.	460	00			38	00	19	00	19	00					76	00	384	00
Sacks	355	00			80	00	15	00	15	00					110	00	245	00
Stable	270	00			30	00					105	00			135	00	135	00
	6391	00	6859	00	1004	40	376	32	352	48	105	00	31	68	1869	88	11380	12

book shows everything on hand in round figures, cases, pounds, and feet; fractions need not appear in this book. For example: your inventory showed that at San Juan Mine there were eighty cases of candles (full) and fifteen single candles over. In the Warehouse Book (for our present purpose) the odd fifteen need not appear, though record is kept on the mine list which is sent in on form Fig. 15.

On the lumber side of the Warehouse Book the number of boards are given for each size, at each mine, obtaining which the numbers offset are figured out. The quantity of slabs and poles are also shown with corresponding prices, the total sum being the value of the lumber on hand, as shown on Fig. 13. In the receiving column will appear the number of articles for which payment has been made during the month. Prices on any article may vary from month to month, consequently the prices in Warehouse Book are not fixed but subject to change when fresh supplies are received. On another form, Fig. 16, all materials received during the month will be shown, giving the voucher number. Fig. 16 shows that some powder was purchased from the Explosion Company, their invoice price being f. o. b. Las Mesas station, $5789.70. Now the railroad freight charges amounting to $489.70 were paid by the Federal Mining Company upon delivery of car, consequently this charge must be deducted from the amount of the invoice. A draft is therefore made out in favor of the Explosive Company for $5300 and the railroad expense bill for the $489.70 is sent to shipper in full settlement of the bill.

To the above is added the hauling charges from Las Mesas station to the mines, which expense is

Fig.

WAREHOUSE

FEDERAL MINING

ARTICLE	PRICE		ON HAND 1ST				RECEIVED				USED				ON HAND			
			S.J.	S.P.	S.M.	Total	S.J.	S.P.	S.M.	Total	S.J.	S.P.	S.M.	Total	S.J.	S.P.	S.M.	Total
Candles — 6 X 14	10	00	80	10	10	100					10	3	7	20	70	7	3	80
Powder — 40%	15	00	50			50	400				3		2	5	445			445
" 60%	18	00	20			20						5		5	15			15
" Black	5	00	10			10					2		1	3	7			7
Caps — XXX	6	00	4800	100	100	5000					400	100	100	600	4400			4400
" "																		
Fuse — S. T.	6	00	4000			4000					400	100	100	600	3400			3400
Fuel — Coal, tons	20	00	30	10	10	50					10	5	5	20	20	5	5	30
" Wood, "	10	00	5	5	5	15					2	1	1	4	3	4	4	11
Oils — Lub.	9	00	20	10	10	40					2	1	1	4	18	9	9	36
" Ill.	10	00	10			10					2	1	1	4	6			6
Sacks — Jute		25	500	100	100	700					200			200	300	100	100	500
" Fiber		30	500	50	50	600					100	50	50	200	400			400
Stable — Corn, lbs.	70	00	2000			2000					1000			1000	1000			1000
" Hay, bales	2	00	100			100					50			50	50			50

No. 14

BOOK

COMPANY

LUMBER	PRICE	ON HAND 1ST				REC'D	USED				ON HAND				REMARKS
SIZES		S.J.	S.P.	S.M.	Total	S.J.	S.J.	S.P.	S.M.	Total	S.J.	S.P.	S.M.	Total	
1 × 6 × 18	80 00	100	100		200		20	5	5	30	80	90		170	
1 × 12 × 18	"	50	25	25	100		10	25	10	45	40		15	55	
2 × 12 × 18	"	75	12	13	100		40	4	6	50	35	8	7	50	
3 × 12 × 18	"	50			50	200	20			20	230			230	
Poles	5 00	100	50	50	200		50	10	10	70	50	40	40	130	
Slabs	50	200	50	50	300		70	20	30	120	130	30	20	180	

calculated on basis of time and materials consumed by the Federal Mining Company's teams. On Fig. 16 we see that the total cost laid down at the mines on 400 cases of 40 per cent Dynamite was $5965, equal to $14.91 per case. The stock on hand 1st of month was figured at $15. As the difference is only 9 cents per case the price may remain in Warehouse Book (Fig. 14) at $15. With regard to the price of lumber it will be seen that 10,800 ft. (Fig. 16) cost $894 or $82.77 per Mil, consequently it will be necessary to ascertain number of feet on hand 1st of month at $80, which we find, according to Warehouse Book (Fig. 14), to be:

1st. of month.....	9900 ft. at	80.00	792.00
Rec'd.....	10800 " "	82.77	894.00
Number of.....	20700 " "	81.45	1686.00

In other words, the price is changed from $80 per 1000 ft. to $81.45 until the next shipment, when the same operation is repeated. On Fig. 16 we have received Powder amounting to $5965, and Lumber, $894; both these items are entered on Fig. 13 and the sum on the two forms Fig. 13 and 16 should agree. We now proceed to ascertain what materials were used and sold during the month. Each mine foreman at the end of month reports movement of supplies, as shown on Fig. 15. These forms can be of different colors in the same manner as the pay-roll tickets. It will be noted that a greater quantity of materials is stored at San Juan Mine. This is explained by the fact that the main offices, warehouse, etc., are adjacent thereto and that powder, candles, oils, etc., are received at and distributed from that point. Each mine, as indicated on Fig. 15, sends monthly reports to the office. Data obtained therefrom is entered

FEDERAL MINING COMPANY
LAS MESAS, CORRIENTES, MEXICO

MINE MONTH 190

MATERIALS AND SUPPLIES

DESCRIPTION	O. H. 1st MONTH	USED F.M.CO.	SOLD CONT.	DELIV. OTHER MINES	DELIV. OUT-SIDE	TOTAL	FOR WHAT PURPOSE USED	REC'D	O. H. END MONTH	REMARKS
Candles	80	3	7			10	3 cases (2) 7 cases (3)		70	
Powder — 40%	50		3	2		5	(3)	400	445	
60%	20			5		5	Construction		15	
Black	10	2		1		3	"		7	Blasting rock for buildings
Caps	5000	100		200		600	100 to (2) 300 to (3)		4400	
Fuse	4000	100	300	200		600	" " " " " "		3400	
Fuel — Coal	30	10				10	(4)		20	
Wood	10	2				2	"		8	
Oils — Lub.	20	2				2	"		18	
Ill.	10	2		2		4	(9)		6	
Sacks — Jute	500	200				200	(7)		300	
Fiber	500		100			100	(3)		400	
Stable — Corn	2000	1000				1000	25% (7) 75% material		1000	
Alfalfa	100	50				50	" " " "		50	
Lumber — 1 × 6 × 18	100	20				20	Construction		80	
1 × 12 × 18	50	10				10	"		40	
2 × 12 × 18	75	30			10	40	"		35	10 to Mendez é hijo
3 × 12 × 18	50	20				20	"		30	
Poles	100	50				50	Construction		50	
Slabs	200	70				70	"		130	

Fig. No. 16

FEDERAL MINING COMPANY
Las Mesas, Corrientes, Mexico

STATEMENT OF MATERIALS RECEIVED DURING 190

DESCRIPTION	VOUCH NO.	AMOUNT	TOTAL
Explosives			
400 cases 40% powder	3	5300 00	
R. R. frt. " " car 5879, No. 41	9	489 70	
Wagon " " "	10	100 30	
" " " "	11	75 00	5965 00
Lumber			
200 — 3 × 12 × 18, 10800 ft.	1	370 00	
R. R. frt. " car 4976, No. 39	9	294 00	
Wagon frt. "	10	200 00	
" " "	11	30 00	894 00
			6859 00

into Warehouse Book (Fig. 14), and it also furnishes the necessary information for the correct distribution of the charges (see distribution of accounts). Coming now to the materials sold to the contractors, the cost of which is deducted from the different men on the pay-roll, it is to be observed that supplies are not sold at cost price nor is an exorbitant profit made on the articles. For example: We see that a case of candles 6 x 14, 240 to box, costs the company $10 Mexican pesos. They are retailed at 5 cents each candle to contractor, or at rate of $12 per box. The storekeepers in Las Mesas sell a similar candle at 6 cents each. If price is reduced to below 5 cents at the mine the men can afford to buy a large quantity and resell to the merchants in town; if, on the other hand, the price is raised to 6 cents the men will procure their candles from the storekeeper if a slight concession is made them.

On the 15th and end of each month printed slips (see Fig. 17) are sent to the office; these slips can be of similar color to pay-roll tickets, and the amounts, after being checked, are entered into contractor's Time Book and from that book into the regular Pay-roll Book. The total sum of all the slips for each fortnight should agree with the figures in the Pay-roll Book. All the sales at one mine will be credited to the mine in the Journal Record Book. Fig. 15 shows the purpose for which the various articles were used. This is given in an abbreviated form by simply giving the distribution number, and this leads us to the next consideration, viz.:

Fig. No. 17

FEDERAL MINING COMPANY

MINE S. JUAN DATE 6/15 1907
NAME AURELIO HERNANDEZ

VARIOUS	CANDLES	DYNAMITE	CAPS	FUSE		PRICE	AMOUNT
	240					05	12 00
		100				11	11 00
			100			01	1 00
				100		01	1 00
							25 00

DISTRIBUTION OF ACCOUNTS

Before proceeding to enumerate the sub-divisions employed it were well to remark that (at this stage) an Invoice Record Book be kept (see Fig. 18). In this book the merest outlines need only be given, seeing that invoice and packing list with full details are on file in the office, Voucher No. 7 for instance. In addition to this an indexed book for the desk, giving name of article, railroad freight per ton, and price per unit at the mine, will be found useful. For example:

Article	Origin	R. R. rate ton	Price Unit	Date
Cotton waste	Mexico City	22.00	0.15 lb.	June

This will always be handy for reference, not only to check price of one shipper against another, but also the same shipper against previous shipments and also serve as a check against errors in railroad charges. Different companies subdivide and classify their accounts to suit the peculiar exigencies of their business. Certain recognized modes of distribution, however, are usually followed by mining companies and may be described thus:

Construction Account

(1) Buildings.
    (*a*) Shops, warehouses.
    (*b*) Dwelling houses, rooms.
    (*c*) Tanks, reservoirs, etc.
(2) Machinery, boilers, hoists.
(3) Shafts.
(4) Tramway.

Fig.

INVOICE

DATE REC'D		SHIP. DATE		INV. NO.	OFFICE NO.	SHIPPER	ORIGIN	DESCRIPTION	WEIGHT
6	18	4	3		7	F. & Chalmers	Chicago	Machinery Car 12575 A. T. S. Fe	11506

No. 18

RECORD

AMOUNT	R. R. CHARGES		EXPRESS CHARGES	DUTIES	WAGON FREIGHT	TOTAL	PER UNIT	REMARKS
	AMOUNT	E. B.						
4520 00	1875 00	43		525 00	250 00	7170 00		Hoist, S. Pedro Mine

Operating Account

(1) Prospecting: to include all labor, tools, materials, etc., used for either surface or underground work which may properly be called prospecting.

(2) Development: includes all labor, tools, timber, etc., employed in sinking, drifting opening and blocking out ore.

(3) Stoping: all expenses of labor and materials of drilling and breaking ore, figured at so much per ton, car or meter.

(4) Hoisting: includes cost of fuel, lubricating oils, repairs to machinery, labor, etc.

(5) Tramming: covers all expenses of hauling ore from shaft to bins, repairs to track, ore cars, proportion of stable expense for mules, labor, etc.

(6) Sampling: cost of tools, labor, etc., for sampling the lots in yard after being hoisted.

(7) Loading, transportation: includes cost of ore sacks, hauling from mine to railroad, repairs to wagons, repairs to road, labor of teamsters, watchmen at station, loading into railroad cars.

(8) Laboratory: all expenses of assay office, supplies, labor, salaries, etc.

(9) General expense: salary of Superintendent, wages of Mechanic, Foremen, Shift-bosses, and other employees whose work is general, such as office boy, messenger; all supplies for office such as stationery, ink, telephone service, payments for stamps, telegrams, express charges; all supplies for the mines not exclusively used at one point, such as cotton waste; proportion of stable expenses for the company's coach and team, etc.

The "General expense" is distributed pro rata against each mine at end of month, according to tonnage produced.

Presuming that San Juan produced 500 tons, San Pedro and San Marcos each 250 tons, the proportions would be 50 per cent, 25 per cent, and 15 per cent respectively. Seeing this, however, that only San Juan is producing, the other mine being under construction, the latter are assessed with a fixed arbitrary quota of 15 per cent each, leaving 70 per cent for the producing mine of San Juan.

Material Account

Should be charged with all expenses pertaining to this account, against each particular shipment received.

Hospital Fund

All disbursements for sick benefit, funeral expenses, stationery, doctor's salary, etc.

"Hotel"

This account if kept by the company is administered as a separate one. Usually cook's wages, fuel, oil, and first cost of all kitchen and dining-room utensils, rooms, etc., are furnished free. Against the account are charged all comestibles (exclusive of intoxicating beverages) all additions to and replacing of breakages, etc. The account is balanced at end of each month by deduction from men's pay according to number of meals eaten.

This distribution of accounts may be modified or amplified as found to be necessary. So far we have dealt with construction and operating accounts for the

mine; other departments can be added, such as mill, cyanide, smelting, etc., and each subdivided in the manner most convenient. From the foregoing it will be comparatively easy to apportion the charges to the proper account. It may happen that on any one invoice more than one account may be represented, in which case the items covering each account should be put in one sum, repeating the operation for each separate account and all shown in red ink on the voucher. The Pay-roll too will show in the outside column the number of account, after which add the amounts for same numbers together; when this is done add total of all the accounts to see that sum agrees with total sum of Pay-roll, then enter the corresponding amounts against each number in the order as shown, commencing with "Prospecting" and ending with "General Expense." After obtaining all the separate accounts make up a voucher showing each one, against each mine; one voucher form will answer for the three mines (see Fig. 19). This method saves considerable work in making out a voucher for each mine.

Adopt the same plan in making up the voucher for materials used (see Fig. 19). It may occur to some one to ask, why all this distribution? The real objects in view are, to find out what certain work costs, if men are being paid too much per day, whether it is cheaper to work by contract or day's pay, if part or all of labor or materials can be dispensed with, whether suitable labor-saving devices should be installed, etc. These and many other things can be ascertained from a proper system of mine accounting. In saying this, however, it should be borne in mind that a system can become "top-heavy," *i.e.*, be cumbersome and

Fig. No. 19

No. 12
Charge — as below
Credit Material %

FEDERAL MINING COMPANY
to
DISTRIBUTION OF MATERIALS USED IN MINES

	S. JUAN		S. PEDRO		S. MARCOS		MAT'LS				TOTAL	
Prospecting	23	65									23	65
Development	47	31									47	31
Stoping	402	14									402	14
Transportation	30	00									30	00
Hoisting	238	00									238	00
Laboratory	20	00									20	00
Con. Shaft			265	20	250	20					515	40
" Tramway	243	30	111	12	102	28					456	70
" Materials %							105	00			105	00
	1004	40	376	32	352	48	105	00			1838	20

expensive. This is a danger to guard against when commencing to operate new properties. To illustrate: A carpenter loses a chisel, value $1; he is sent to look for it — cannot find it — loss of time another $1. Tool is deducted from his pay, carpenter objects and quits work. Work held up and traveling expenses paid for another carpenter to come from nearest town — total loss to company, $45 for a chisel. In addition to the forms and books already mentioned a Journal will be required. Strictly speaking this will be a

in which will appear the whole of the operation of the mines. It should show at a glance (see Fig. 20). It will be found that certain accounts, whilst chargeable to the mine at Las Mesas, are not in reality cash transactions, so far as the books at the mines are concerned. For instance: The Hoist received for the San Pedro Mine, voucher No. 7, Fig. 18, was ordered shipped by the Boston office of the Federal Mining Company, who made payment for same. Boston office therefore advises the mines and the latter receive the Fraser & Chalmer invoice, showing amount in United States dollars. Seeing that books are kept in Mexican currency the amount is converted into latter at the current rate of exchange and debited to the San Pedro Mine on the Debit side of Journal (see Fig. 20). On the Credit side of the Journal appear the same figures and showing to what account this Hoist was distributed. By taking each voucher in the Journal (Fig. 20) separately we shall better understand the process of distribution:

VOUCHER No. (1) Is a bill received for lumber and therefore is charged to material account.

(2) Is a bill for hardware, comprising bolts for San Juan Mine, used in connection with the hoist; consequently that part of the bill is

Fig.

FEDERAL MINING

MONTH JOURNAL

SAN JUAN		SAN PEDRO		SAN MARCOS		HOTEL		HOSPITAL		MATERIALS		BOSTON OFFICE		TOTAL		DATE		NAME
																6	3	Mex. Lumber Co.,
																	5	Reneckie & Co.
																	"	" "
																	"	" "
																	"	Nat. Explosive Co.
																	6	Am. Telephone Co.
																	8	Medical Supply Co.
						155	00							155	00		12	Sam Lung
												4520	00	4520	00		18	Fraser & Chalmers
																	30	Stamps, telegrams, etc.
																	"	Hospital
																	"	Eastern R. R. Co.
																	"	" " "
																	"	" " "
												4	00	4	00		"	Cash refunded
																	"	Pay-roll, labor
																	"	" "
102	50																"	" "
																	"	" "
																	"	" "
																	"	" "
																	"	" "
																	"	" "
																	"	" "
																	"	" "
																	"	" "
		75	00	37	50			214	45					429	45		"	" "
								7	50					7	50		"	" employees
																	"	" "
																	"	" "
																	"	Materials used
																	"	" "
																	"	" "
																	"	" "
																	"	" "
																	"	" "
																	"	" "
										1838	20			1838	20		"	" "
										31	68			31	68		"	" sold
												25041	15	25041	15		"	Drafts drawn
																	"	Gen. expense a/c pro
102	50	75	00	37	50	155	00	221	95	1869	88	29565	15	32026	98			

No. 20

COMPANY

RECORD 190

DISTRIBUTION	NO.	MATERIAL	HOSPITAL	HOTEL	GEN. EXPENSE	SAN JUAN	SAN PEDRO	SAN MARCOS	TOTAL
Lumber, Materials	1	370 00							370 00
Bolts, Hoisting	2					10 20			
C. — Press, Gen. exp.	"				15 00				
Rope, Con. Shaft	"							36 60	61 80
Powder, Materials	3	5300 00							5300 00
Batteries, Gen. exp.	4				150 00				150 00
Cots, Hospital	5		30 00						30 00
Supplies, Hotel	6			155 00					155 00
Hoist, Con. Mach'y	7						4520 00		4520 00
" Gen. exp.	8				19 05				
Sick benefit	"		6 00						25 05
Frt. Ch'gs Materials	9	783 70							
Hoist, Con. Mach'y	"						2400 00		
Waste, Gen. exp.	"				5 90				3189 60
" { Materials	10	300 30							
" { Prospecting	"					45 00			
" Develop't	"					420 00			
" Stoping	"					2005 00			
" Hoisting	"					560 00			
" Tramming	"					300 00			
" Sampling	"					75 00			
" Transport'n	"					149 70			
" Laboratory	"					90 00			
Con. Shops	"					2105 00			
" Mach'y	"						1090 00		
" Shaft	"						1500 00	750 00	
" Tramway	"					500 00	1200 00	3200 00	14290 00
" Gen. exp.	11		173 46		1000 00				
" Hoisting	"					250 00			
" Con. Mach'y	"						250 00		1673 46
" Prospecting	12					23 65			
" Develop't	"					47 31			
" Stoping	"					402 14			
" Hoisting	"					238 00			
" Transport'n	"					30 00			
" Laboratory	"					20 00			
" Shaft	"						265 20	250 20	
" Tramway	"					243 30	111 12	102 28	
" Materials	"	105 00							1838 20
	13								
	14								
rata 70%, 15%, 15%					1189 95	832 97	178 49	178 49	
		6859 00	209 46	155 00		8347 27	11514 81	4517 57	31603 11

charged to Distribution No. 4, which is hoisting. On the same bill is a charge of $15 for a copying-press for the office, therefore same is charged to No. 9, which is General Expense. A manila rope for the shaft at San Marcos Mine is charged to Construction Shaft in the column for San Marcos.

(3) Bill for powder goes to Material Account.

(4) Electric batteries: this is a bill which goes to "General Expense" column.

(5) Is a bill for two stretchers for Hospital Account.

(6) Supplies for the Mess-house; note also on the Debit side that amount has been received.

(7) This has already been referred to as bill received from and paid for by Boston office; see the Debit entry for same.

(8) Is the total of petty-cash expenditures for the month, express, telegrams and stamps amounting to $19.05; goes to No. 9, General Expense, and the payment of $6 for sick benefit goes to Hospital Account.

(9) Is the total for month of payments to railroad and the charges are distributed to Material Account, Construction Machinery San Pedro Mine and General Expense.

(10) Is a voucher covering the gross amount of Pay-roll after all distributions have been made.

(11) Is the voucher for salaries and wages of monthly employees.

(12) Shows how all the entries for materials used are taken up. By "used" is meant all the materials sold to contractors and used by the company employees.

(13) This is a carbon copy of the bill made out against Mendez é hijo for lumber; see Debit side.

(14) Shows total sum of drafts drawn during month which has been charged to cash.

A voucher should also be made out for the two items, viz., $3.25 unclaimed wages and the 75-cent refund which appears on the Debit side of Cash Book. By comparing the Cash Book with the Journal Record Book they will be found to agree, as both show a balance (which of course is cash) of $1175.96. This amount therefore is carried forward to July 1st, as:

July 1st. To balance brought forward $1175.96

On the bottom line in the Journal will be found the pro rata of the total "General Expense," entered 70 per cent in the column for San Juan and 15 per cent each to San Pedro and San Marcos.

LEDGER

In the commercial world the Ledger is considered the most important book. Except in the matter of condensing the accounts it would be almost unnecessary to keep this book at the mines, because all the data required is to be found in the Journal. However, for the purpose of keeping a concise summary of the different accounts a Ledger will be found useful. Each mine should have its own account, starting from the first payment, so that total expenditure may be ascertained at glance. Entries should be made at end of each month, taking same from the Journal Record (see Fig. 21). A similar account for materials and hospital fund should be kept (see Figs. 22 and 23) and a General Account for the whole mines (see Fig. 24).

Fig. No. 21

Dr. SAN JUAN MINE *Cr.*

1907						1907				
6	30	To Mat'ls pay-roll		102	50	6	30	Operating	5498	97
							"	Con. shops	2105	00
							"	" Tramway	743	30

Fig. No. 22

Dr. MATERIAL ACCOUNT *Cr.*

1907						1907					
6	1	Balance on hand	6391	00		6	30	Used	1869	88	
	30	Received	6859	00			"	Balance	11380	12	
			13250	00					13250	00	
7	1	Bal.	11380	12							

Fig. No. 23

Dr. HOSPITAL FUND *Cr.*

1907						1907				
6	30	Receipts	221	95		6	30	Disbursements	209	46
							"	Bal.	12	49
									221	95
7	1	Bal.	12	49						

Fig. No. 24

Dr. GENERAL ACCOUNT *Cr.*

1907						1907					
6	1	Cash balance		752	09	6	30	San Juan		8347	27
	30	Boston office		29561	15		"	San Marcos		4517	57
	"	Petty cash		4	00		"	San Pedro		11514	81
	"	San Juan		102	50		"	Materials		6859	00
	"	San Pedro		75	00		"	Hospital		209	46
	"	San Marcos		37	50		"	Hotel		155	00
	"	Hotel		155	00		"	Bal.		1175	96
	"	Hospital		221	95						
	"	Materials		1869	88						
				32779	07					32779	07
7	1	Bal.		1175	96						

PROFIT AND LOSS

Whilst the practical operation and administration of the mines does not concern itself with the Treasury Finances of the Federal Mining Company, yet immediately a mine commences to produce ore, it is part of the superintendent's duties to make out a statement, showing cost of production, transportation charges, treatment charge at the Smelter, or, if the ore is treated, *i.e.*, concentrated, milled, or cyanided on the ground, the separate cost of each operation, and then show the value of ore or bullion produced. According to June statement (see Fig. 21) San Juan operation expenses amounted to.....$5498.97

Less credits for materials sold..... 102.50

or a net cost of (excluding construction charges) 5396.47

The net tonnage from San Juan during June was 500, making the actual cost per ton in round figures $10.80. Where ore is shipped to a custom smelter it is usually a matter of two or three months before returns come in; in the meantime an approximate value is placed upon the ore, based on the mine sample and assays. When Smelter results arrive the difference is taken up in the Ledger, for or against the company, at the head office. On Fig. 25 we have an example of a Smelter liquidation sheet. In Mexico, of course, there are other charges, such as Federal taxes on gold and silver; State taxes on gold, silver and lead, document stamps; etc.

Fig. No. 25

CORRIENTES SMELTING COMPANY

Liq. No. 1400 — Corrientes, Aug. 15, 1907

In Favor of Federal Mining Co.

Shippers Lot 1 — Smelter Lot 1400 — Class Sio. Pb.

CAR	SACK	WEIGHT			QUOTATIONS AND PRICES	
		GROSS	H_2O	NET		
7506						8/15/07
5238					Silver	.65 oz. troy
6125					Gold	$19.00 " "
3209					Lead	.05 lb. av.
8650					Copper	
		200000	2%	196000		

	Assay	*Conditions*	*Quot.*				
Gold	0.30 oz.	95%	19.00	5	41		
Silver	100 oz.	"	.65	61	75		
Lead	20%	90%	.05	9	00		
Iron	20%	Unit	.10	2	00		
Lime	10%	"	.10	1	00		
						79	16
		Charges					
Freight and Treatment f.o.b. Las Mesas				16	00		
Silica	30%	Unit	.15	4	50		
Zinc		"					
Sulphur		"					
Arsenic		"					
						20	50
			Net value per ton			58	66
			Exchange @ 200%			58	66
						117	32

196000 lbs. = 98 tons @ 117.32 = Mex. Currency — $11497.36

Much more could be written, but if the writer has made the subject sufficiently clear up to this stage, his object will have been attained, as the more complex problems of mine accounting may very well be left to experts in the profession.

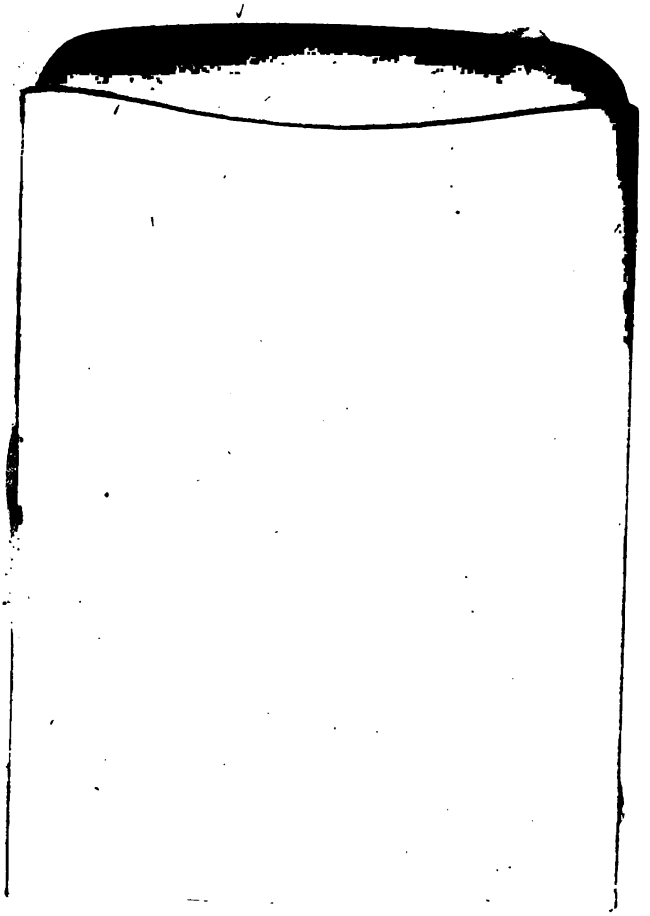
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